

ABSTRACT

In the present invention, a potable water treatment system for treating potable-water that is being transferred from a potable water source to a number of potable water using entities via a potable water line is presented. Said potable water treatment system has a chemical feed system that comprises a measuring device for measuring the characteristics of the potable water in the potable water line, a number of chemical feed sources containing a number of chemical additives (including, but not limited to, a number of chelants, a number of oxidizers and a number of dispersants), a proportioning device for determining any required amounts of the number of chemical additives to be added from the chemical feed source to the potable water in the potable water line and a number of controlling pumps for adding the required amounts of the number of chemical additives to the potable-water in the potable water line. Upon determination by the measuring device and the proportioning device of the required amounts of the number of chemical additives, the required amounts of the number of chemical additives are directed via the number of controlling pumps from the number of chemical feed sources to the potable water line at any desired position between the potable water source and the potable water using entities. The method of operation of the potable water treatment system is also presented.